

Remarks

This Reply is considered fully responsive to the Office Action mailed March 9, 2006. Claims 1-28 are pending in the application. Claims 14-28 were withdrawn from consideration by the Office. Claims 1-13 stand rejected, and claim 10 stands objected to. Claims 1 and 8-12 are amended. No claims are canceled. No new claims are added. In view of the following remarks, Applicants respectfully request reconsideration and allowance of the subject application.

Election with Traverse

The Office has issued multiple restriction requirements in the examination of the present application. After the Applicants' last Reply to the Office's restriction requirement, the Office has treated Applicants' election with traverse as an election without traverse, arguing that the Applicants have purportedly failed to distinctly and specifically point out the supposed error in the restriction requirement. The Applicants assert that previous responses have distinctly and specifically pointed out the errors in the restriction requirements and assert that the Office's making of the restriction requirement FINAL is improper. Further, the Applicants maintain the traverse and wish to preserve the right to petition from the requirement under 37 C.F.R. 1.144.

In the first restriction requirement, dated July 27, 2005, the Office identified Group I (claims 1-24) and Group II (claims 25-28), and within Group I, identified Species I (claims 1-13) and Species II (claims 14-24). The Office proposed that Species I claims do not recite an electrical connector whereas Species II claims do recite an electrical connector. In response, the Applicants traversed the restriction requirement, asserting that claims from both identified Species recited "connectors". The Applicants nevertheless elected Group I and Species I for examination.

In the second restriction requirement, dated November 4, 2005, the Office withdrew the first restriction requirement and issued a second restriction requirement, identifying the same Groups and Species, with a different justification for the Species restriction. The Applicants nevertheless elected (with traverse) Group I and Species I for examination.

In support of the second restriction requirement as it pertained to Groups I and II, the Office argued that a materially different process than that of Group II could be used to make the apparatus of Group I, specifically applying the adhesive to the second die first, etc. In a Reply dated December 5, 2005, Applicants argued that no order of the operations is set out in claim 25,

so the purported "difference" identified by the Office is incorrect or at least immaterial. The Applicants respectfully submit that this argument distinctly and specifically pointed out the Office's error. However, in the Office Action dated March 9, 2006, the Office failed to rebut, respond to, or even acknowledge the Applicants' argument. For at least the foregoing reasons, both the restriction requirement and its finality are improper.

Furthermore, in support of the restriction requirement as it pertains to Species I and II, the Office merely listed the claims in paragraph form and concludes that the claims recited distinct inventions for the "reasons given above and have acquired separate status in the art as shown by their different classification". However, no reasons were "given above" and no different classification was (or is) explained or justified. In the Reply dated December 5, 2005, the Applicants argued that the claims were not mutually distinct and indeed cover the same implementation shown in FIG. 4A. This argument is believed to distinctly and specifically point out the Office's error. However, in the Office Action dated March 9, 2006, the Office failed to rebut, respond to, or even acknowledge the Applicants' argument. Therefore, both the restriction requirement and its finality are improper.

In the Office action dated March 9, 2006, the Office further argues with regard to Groups I and II that "another example of distinctiveness between the device and the method claim is that in the method of claim 26 wherein the controller connected to first and second chip is used for flash memory and not for disk drive." The Applicants do not understand the Office's new argument and requests the Office to review the argument for typographical/grammatical errors. The Applicants further point out that claim 26 is a dependent claim and that none of the independent claims 1, 14 or 25 recite any limitations to controllers, disc drives, or flash memory. As such, the Office has failed to provide any viable justification for the restriction requirement between Groups I and II.

Also in the Office action dated March 9, 2006, the Office further argues with regard to Species I and II that the claims of Species I purportedly require a minimum of one electrical connector and the claims of Species II purportedly require a minimum of two electrical connectors. The Applicants respectfully yet earnestly disagree. To support a requirement for restriction between two or more related product inventions, both two-way distinctness and reasons for insisting on restriction are necessary, i.e., separate classification, status in the art, or field of search. See MPEP §806.5(j). In the present application, both independent claims 1

and 14 recite "at least two dice" and "at least one electrical connector". There is no requirement of a minimum of two electrical connectors in claim 14. Nevertheless, even if such a requirement existed in claim 14, the Office has failed to show why such a difference would support a finding of distinctiveness and has not met its burden as specified in MPEP §806.5(j).

For the foregoing reasons, the Applicants maintain the traverse, request removal of the finality of the restriction requirement, and preserve the right to petition for removal from the restriction under 37 C.F.R. 1.144.

Specification

The Applicants acknowledge the Office's request to correct any errors in the specification that the Applicants are aware of. No such errors have been identified at this time.

Claim Objection

The Office has objected to a purported informality in the first line of claim 10. The Applicants have reviewed claim 10 and have amended claim 10 to depend from claim 9. Furthermore, the Applicants have amended claim 9 to depend from claim 8. These amendments are believed to merely correct typographical errors in the claims, as evident from the antecedent basis requirements of the amended claims.

Claim Rejections – 35 U.S.C. §102

The Office has rejected claims 1-8, 12-13 under 35 U.S.C. §102(e) as being purportedly anticipated by U.S. Patent No. 6,538,331 to Masuda et al. ("Masuda"). The rejection summary on page 4 of the Office action fails to identify claim 11 as being rejected; however, a detailed rejection argument on page 8 of the Office action appears to reject claim 11. As such, this Reply is responsive to an apparent rejection of claim 11.

Claim 1 has been amended to recite a third die and a direct electrical connection between the third die and the stacked dice by a direct die-to-die connector. Masuda fails to disclose or suggest an apparatus as recited in claim 1 – Masuda's wires connect the bonding pads of each memory chips to a circuit board on which the memory chips are stacked. No direct connection Masuda fails to disclose or suggest a third die being connected directly to an electrical connection of a stacked dice via a direct die-to-die connector. Accordingly, Masuda fails to

anticipate or make obvious the invention of claim 1, so allowance of claim 1 is respectfully requested.

Claims 2-8 and 11-13 depend from claim 1, which is believed to be allowable. Accordingly, claims 2-8 and 11-13 are believed allowable for at least the same reasons as claim 1. As such, allowance of claims 2-8 and 11-13 is respectfully requested.

Claim Rejections – 35 U.S.C. §102 or §103

The Office has rejected claims 9 and 10 under 34 U.S.C. §102(e) as being purportedly anticipated by U.S. Patent No. 6,538,331 to Masuda or alternatively under 34 U.S.C. §103(a) as being purportedly obvious in light of Masuda.

Claims 9 and 10 depend from claim 1, which is believed to be allowable. Accordingly, claims 9 and 10 are believed allowable for at least the same reasons as claim 1. As such, allowance of claims 9 and 10 is respectfully requested.

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Conclusion

This Reply is believed to be responsive to all points raised in the Office action. Examination and allowance of all claims 1-28 is requested in light of the improper restriction requirement. Accordingly, prompt allowance and passage of the application to issue are earnestly solicited. Should the Examiner have any remaining questions or concerns, he/she is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

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Date


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